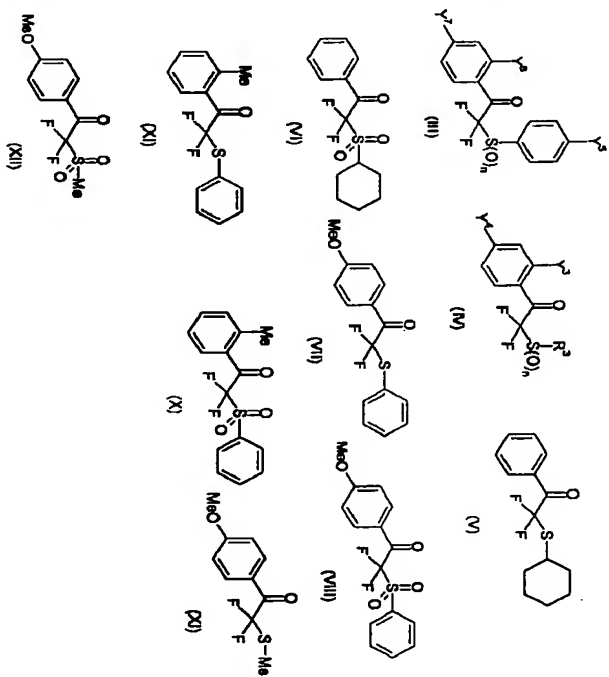


<p>2003-473339/45 B05 C03 DAIK 2001.08.10 DAIKIN KOGYO KK 2001.08.10 2001-244545(+2001JP-244545) (2003.02.26) C07C 321/28, 317/24, 321/20, 321/22 New alpha, alpha-difluoro sulfoxide compound used as intermediates for pharmaceuticals, photoacid generator and electronic material, has reduced dielectric constant, low refractive index, and good chemical stability C2003-127189</p>	<p>B(10-A10, 10-F2) C(10-A10, 10-F2) .2</p>
<p><u>NOVELTY</u> An α,α-difluoro sulfoxide compound (I), is new.</p> <p><u>DETAILED DESCRIPTION</u> An α,α-difluoro sulfoxide compound having formula (I), is new.</p> <div data-bbox="787 136 950 388"> <p>(I)</p> </div> <p>R^1 = optionally substituted alkyl, optionally substituted aryl or</p>	<p>optionally substituted cycloalkyl; R^2 = optionally substituted alkyl or optionally substituted aryl; and $n = 0-2$. When n is 0 or 2, both R^1 and R^2 are phenyl groups. When n is 0, R^1 is methyl, p-chlorophenyl, or ethyl and R^2 is a substituted benzene compound having formula (II), tert-butyl, 3,5-difluorophenyl or 2,4-difluorophenyl.</p> <div data-bbox="966 1102 1128 1333"> <p>(II)</p> </div> <p>(III) $Y^1, Y^2 = H$, halogen or trifluoromethyl. INDEPENDENT CLAIMS are included for the following: (1) α,α-difluoro sulfoxide compound having formula (III); (2) α,α-difluoro sulfoxide compound having formula (IV); (3) α,α-difluoro sulfone compound having formulae (VI, VIII, X and</p> <p>JP 2003055340-A+</p>

- XII) and α,α -difluoro sulfide compound having formulae (V, VII, IX and XI);
 (4) pharmaceutical and agrochemical intermediate;
 (5) photoacid generator (intermediate);
 (6) electronic material (intermediate);
 (7) liquid crystal material (intermediate); and
 (8) polymerization catalyst (intermediate).



Y^3 - Y^5 = H, halogen, optionally substituted 1-10C alkyl, optionally substituted 1-10C alkoxy, optionally substituted 3-10C cycloalkyl or optionally substituted 6-12C aryl;
 R^3 = optionally substituted 1-10C alkyl or optionally substituted 3-

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10C cycloalkyl;
 $Y^6, Y^7 = Y^3, Y^5$.
 Y^3, Y^4 and Y^5 are not hydrogen atoms simultaneously. When n is 0, R^3 is methyl or ethyl, and Y^6 and Y^7 are hydrogen atoms, halogen, trifluoromethyl or fluorine.

USE

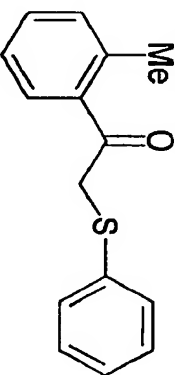
As intermediates for pharmaceuticals, agrochemicals, photoacid generator, electronic material, liquid crystal material and polymerization catalyst (all claimed).

ADVANTAGE

The α, α -difluoro sulfoxide, α, α -difluoro sulfide and α, α -difluoro sulfone compounds show active effect improvement, metabolism suppression, suppression of adverse reaction and mimic effect, when used as intermediates. The compound has high substituent effect, reduced dielectric constant, low refractive index, and good chemical stability with respect to oxidation.

EXAMPLE

O-methyl phenacyl bromide (in g) (60) was dissolved in 270 ml of methanol and mixed with a mixture containing 46 ml of thiophenol and sodium hydroxide (14.4) dissolved in 174:87 solution of methanol and water, stirred at room temperature and extracted with ether. A compound having formula (27) was obtained at a yield of 89 %.



(27)

(25pp3288DwgNo.0/0)

JP 2003055340-A/2